

and, No. 2, we are not going to make you give any of the cattle back that you have already rustled. All we are saying is stop rustling our cattle. What you have already taken from the highway trust fund and spent on other things, go and sin no more.

Their response is, "Well, it's great to spend money on highways, but where"—going back to my rustling analogy—"where are we going to get our beef? If we can't raid the highway trust fund to fund other programs of Government, just where are we going to get our money?"

That's not my problem. We have Members of the Senate who were looking at that \$80 billion and saying, "Great, if we can prevent that from being spent on highways, we could spend it to pay arrears of the U.N. dues, we could spend it on social programs, we could give it to the Legal Services Corporation, we could do all kinds of things with it." So they are not happy that Senator BYRD and I want to allow the money to be spent on highways.

After, basically, raising the concern that they are going to be disadvantaged because they wanted to spend the money in inappropriate ways, now they are trying to say that Senator BYRD's amendment and my amendment would bust the budget. It is not so. Our amendment does not raise the spending caps in the budget. Our amendment does not provide any authority or mandate or excuse for violating the budget agreement we reached last year. All our amendment says is this: You are collecting this money in gasoline taxes. You are telling people that you are spending the taxes to build roads. At least allow those who want to deliver on what you are promising the American people the right to compete in the appropriations process with every other program of the Federal Government.

The answer for those who don't want the money spent on roads is, don't bring up the highway bill; wait and vote on this as part of the budget. Now here is what they hope to do. They hope to convince some of our Democratic colleagues that if they let the highway trust fund be spent on highways, that there is strong support for building new roads, which the country desperately needs and, after all, we said the money was being spent for it when we collected the gasoline taxes. So they are worried that we will build roads or they are going to argue that we will build roads and that will take money away from other programs, so if you want other programs, you don't want to build roads.

They are going to try by getting this all involved in the budget so it can be commingled with President Clinton's proposal to increase spending by \$130 billion and bust the caps. They are hoping to convince Republicans that our proposal is no different than the President's proposal.

The truth is, all we are asking is that money collected in gasoline taxes for

highways be authorized to be spent on highways, and then we have to have competition for available money. And under the budget, if we spend the money on roads, obviously, we are going to have to set priorities, and every Member of the Senate will have to make those decisions.

But this is not a budget issue. We are not talking about breaking the spending caps. This is an issue about highways. Let me tell you why it is critically important.

The current highway bill ends on May 1. It is highly unlikely that we will get another extension of the highway bill. Construction projects on roads and highways all over America are going to come to a screeching halt on May 1. In my part of the country, which is more blessed by God than others, we have long building periods where people can construct through a long spring and summer and fall and actually, for all practical purposes, build year round. But in many States of the Union, they have a 3- or 4-month window when they have to build highways.

So if we follow the prescription of the people who don't support building more roads, who want to spend the highway trust fund on other things, we are going to delay, and by delaying, we may get no highway bill, the States in the northern part of the country may lose their whole building window within this year and, finally, people need to make plans. They need to hire workers. They need to buy capital equipment. We have major highway projects that are partially completed, so we have tied up all this money in building new interstates and new bypasses, and the States, if we are forced to stop construction, will get no use out of those projects.

So I want to urge the majority leader to bring up the highway bill and bring it up next week. I want to make it clear to my colleagues, I will not support breaking the spending cap. I would not author an amendment that broke the spending cap. Our amendment does not raise the spending cap, and that is not what the Senator from Rhode Island is worried about. He is worried that we won't break the spending cap and that highways will compete money away from other programs. Well, I am not worried about that. That is exactly what I want to do, and I think it is the right thing to do. We have 51 cosponsors. We would love to have more.

I thank the Chair for the Chair's indulgence, and I yield the floor.

Mr. KENNEDY addressed the Chair.

The PRESIDING OFFICER. The Senator from Massachusetts.

#### HUMAN CLONING PROHIBITION ACT—MOTION TO PROCEED

The Senate continued with the consideration of the motion to proceed.

Mr. KENNEDY. Mr. President, earlier today, a request was made to consider the cloning legislation that had

been introduced by my friend and colleague, Senator BOND. Objection was made to the consideration of that legislation by the Senator from California.

I want to just indicate to our Members that I think Senator FEINSTEIN was quite right to file that objection. Many of us who are on the Labor Committee believed we would be debating the Satcher nomination this afternoon. It is an enormously important matter that has been delayed too long. We have an outstanding nominee. In fairness, we should be continuing that debate today. The leadership has decided to move on to this cloning legislation.

I believe that this legislation that is being proposed is one of the most important scientific and ethical issues of the 21st century. The legislation itself was introduced 2 days ago. It was put on the calendar 1 day ago. It has not received 1 day of committee hearings. It has not received 1 minute of committee markup. This legislation is a matter of enormous significance and importance to the research communities all across this country and they understand that this legislation does not only impact human cloning.

As the research community has pointed out, technologies that would be banned under Senator BOND's bill offer the key for reaching resolution of a number of very important diseases: Cancer, diabetes, birth defects, arthritis, organ failure, genetic diseases, severe skin burns, multiple sclerosis, muscular dystrophy, and spinal cord injuries. Stem cells may be the key to reproducing nerve cells, which is not possible today, and other cells that may be used to treat Alzheimer's disease, Parkinson's disease, Lou Gehrig's disease. The major researchers in every one of these areas oppose strenuously the Bond legislation because they believe that it will provide a significant barrier to meaningful progress in a number of promising research areas.

I will be delighted to discuss these issues, as Senator FEINSTEIN believes we should, in a timely way so that we can at least have an opportunity to consider these measures in the committee and report those out.

Therefore, I join Senator FEINSTEIN in objecting to the consideration of cloning legislation at this time. We have introduced legislation of our own on this subject. We hope that the Senate will consider it in due course, and that we can work out an acceptable compromise on this issue to give it the careful action it deserves. A rush to enact bad legislation on this subject would be far worse than passing no legislation at all. Every scientist in America understands that, and the American people should understand it, too.

Several months ago, the world learned of one of the most astounding developments in modern biology—the cloning of a sheep named Dolly. This incredible scientific achievement awakened widespread concern about the possibility of a brave new world, in which human beings would be made to

order and where individuals would seek to achieve a kind of immortality by reproducing themselves. There is widespread agreement among scientists, ethicists, and average Americans that production of human beings by cloning should be prohibited.

The President reacted rapidly and responsibly to this scientific advance and the unprecedented issues it raised by asking the National Bioethics Advisory Commission to study the issue and make recommendations. The Commission recommended that creation of human beings by cloning should be banned for at least five years, and the Administration has submitted legislation to implement this recommendation.

The legislation that Senator FEINSTEIN and I have introduced will assure the American public that reproducing human beings by cloning will be prohibited. It follows the President's legislation and the recommendations of the Commission. It makes it illegal to produce human beings by cloning, and establishes strict penalties for those who try to do so.

If the legislation the Majority Leader is seeking to call up achieved this objective, I believe that it would be passed unanimously by the Senate. Unfortunately, it goes much farther. It does not just ban cloning of human beings, it bans vital medical research related to cloning—research which has the potential to find new cures for cancer, diabetes, birth defects and genetic diseases of all kinds, blindness, Parkinson's disease, Alzheimer's disease, paralysis due to spinal cord injury, arthritis, liver disease, life-threatening burns, and many other illnesses and injuries.

All of these various kinds of research have broad support in Congress and the country. A blunderbuss ban on cloning research would seriously interfere with this important and life-saving research, or even halt it altogether. Scientists, physicians and other health professionals, biotechnology companies, pharmaceutical companies, and citizens and patients working with organizations such as the Cystic Fibrosis Foundation, the Parkinson's Action Network, the AIDS Action Council, the American Diabetes Association, and the Candlelighter's Childhood Cancer Foundation understand this. The Senate should understand it, too.

Let me read from a letter signed by the organizations I have just cited and many others as well and sent to members of Congress on January 26, 1998. The participating organizations said, "We oppose the cloning of a human being. We see no ethical or medical justification for the cloning of a human being and agree . . . that it is unacceptable at this time for anyone in the public or private sector, whether in a research or clinical setting, to create a human child using somatic cell nuclear transfer technology."

But they go on to say, "Poorly crafted legislation to ban the cloning of

human beings may put at risk biomedical research."

They point to a long list of diseases where cloning research could be critical, including cancer, diabetes, allergies, asthma, HIV/AIDS, eye diseases, spinal cord injuries, Guillain-Barre syndrome, Gaucher disease, stroke, cystic fibrosis, kidney cancer, Alzheimer's disease"—the list goes on and on.

They conclude: "We urge the Congress to proceed with extreme caution and adhere to the ethical standard for physicians, 'first do no harm.' We believe that there are two distinct issues here, cloning of a human being and the healing that comes from biomedical research. Congress must be sure that any legislation which it considers does no harm to biomedical research which can heal those with deadly and debilitating diseases."

These are reasonable tests for legislation in this important area. First, do no harm. Proceed with extreme caution. No one can pretend that the legislation the Majority Leader is seeking to call up meets these tests?

Proceed with extreme caution! The Majority Leader's legislation was introduced on Tuesday of this week. There has not been a single day of hearings held on it. Not one single day. I doubt that more than a few members of this body have even had the opportunity to read the legislation.

Many of our offices have been deluged with calls from health organizations, scientific bodies, and individual scientists and physicians who are seriously concerned about the damage this bill may do to fundamental research and to possible discovery of long-sought cures for dread diseases. Within a few days, we will have dozens if not hundreds of distinguished scientific bodies and disease societies expressing their opposition to this bill in its current form. As far as I know, there is not a single major scientific body of any stature that has endorsed this legislation.

What is the rush? What is the rush? It is not as if, despite the absurd publicity given to Richard Seed, a baby will be cloned tomorrow. To quote again from the letter I cited earlier, "The American Society for Reproductive Medicine, the Biotechnology Industry Organization, and the Federation of American Societies of Experimental Biology have all stated that their members will not seek to clone a human being. These three associations include essentially every researcher or practitioner in the United States who has the scientific capability to clone a human being."

It is also important to recognize that the Food and Drug Administration already has broad jurisdiction over human cloning, and would act vigorously to shut down any clinic that operates without FDA approval. Such approval depends on a finding that human cloning is safe and effective. But given the current state of science,

no human cloning procedure could possibly be called safe at this time. The FDA approval process is not a permanent ban on human cloning, but it effectively bans the procedure for the near future.

So we have a situation where the procedure is not yet perfected, where the scientists who are competent to clone a human being say that they will not do it, and where the FDA already has the legal tools and responsibility to prevent it. We do not need to act today—and we should not act today—because this bill goes far beyond the simple prohibition of the creation of a human being by cloning.

The sponsors of this legislation state that all they want to do is ban cloning of a human being and that they do not want to interrupt important research. But their bill goes far beyond that, and it does not deserve to pass.

This bill would clearly interfere with medical research that offers hope for a cure of many deadly diseases. A letter I received two days ago from leaders of the Society for Developmental Biology states: "As active researchers in developmental biology, we understand the implications of the Dolly cloning results for basic science and human health." These techniques are essential for basic research because, as the letter goes on to say, "Many diseases, including heart disease, diabetes, and neurodegenerative diseases (such as Parkinson's Disease) involve the depletion or destruction of a particular cell type. One of the great hopes in medicine is to learn ways to replace the lost or damaged cells, for example by stimulating the body to regenerate its own missing cells or by growing the cells in culture and providing them to patients. The main obstacle is that most of the needed cell types cannot be grown in culture, nor can their growth be stimulated in any known way. Dolly was grown from the nucleus of an adult cell, proving that the genetic material of an adult body cell can be reprogrammed by the egg to restore the genetic potential for specializing into all possible cell types. Basic research on genetic programming will likely lead to novel transplantation therapies for numerous human diseases. In essence, we all carry in our cells a library of all the information needed to build a healthy human, and Dolly proves that the information can be reactivated and used again. What are the implications? For example, instead of diabetes meaning a lifetime of insulin injections accompanied by serious side effects, perhaps we can learn how to cause the reactivation of pancreas development genes and the regeneration of the missing cell types. Such exciting ideas are no longer far-fetched."

The key ingredients of this research offer great hope. DNA from an adult cell is placed in an egg cell that has had its own DNA removed. The egg cell then begins to grow and divide under the instructions of the adult cell DNA. The procedure involves what is called

"somatic cell nuclear transfer technology." In the case of Dolly, the technology was used to create a sheep embryo from an adult sheep cell. The embryo was implanted in the womb of the female sheep and ultimately resulted in the birth of a baby sheep named Dolly.

The legislation that Senator FEINSTEIN and I have introduced makes it illegal to implant a human embryo using this technique in a woman's womb. Without that, no baby, no human being can be created by current cloning technology. This is what Dr. Seed says he is going to do. This is what most ethicists oppose. This is what the American people want banned—and our legislation will do it.

But the bill proposed by the Majority Leader will go much farther. It will block this new technology in all other cases as well. It will make it impossible to carry out the research that the overwhelming majority of scientists and researchers say is so important. It will make it impossible to use this new technology to grow cells that can be used to cure diabetes or cancer or Alzheimer's disease or spinal cord injury.

The Majority Leader's bill—page 2, line 13, paragraph 301 is entitled, "Prohibition on cloning." It is the heart of the bill. It states, "It shall be unlawful for any person or entity, public or private, in or affecting interstate commerce, to use human somatic cell nuclear transfer technology." That is the end of the statement. It does not just ban the technology for use in human cloning. It bans it for any purpose at all.

That means scientists can't use the technology to try to grow cells to aid men and women dying of leukemia. They can't use it to grow new eye tissue to help those going blind from certain types of cell degeneration. They can't use it to grow new pancreas cells to cure diabetes. They can't use it to regenerate brain tissue to help those with Parkinson's disease or Alzheimer's disease. They can't use it to regrow spinal cord tissue to cure those who have been paralyzed in accidents or by war wounds.

Congress should ban the production of human beings by cloning. We should not slam on the brakes and have scientific research that has so much potential to bring help and hope to millions of citizens. As J. Benjamin Younger, Executive Director of the American Society for Reproductive Medicine, has said:

"We must work together to ensure that in our effort to make human cloning illegal, we do not sentence millions of people to needless suffering because research and progress into their illness cannot proceed."

Let us work together. Let us stop this know-nothing and unnecessarily destructive bill. Together, we can develop legislation that will ban the cloning of human beings, without banning needed medical research that can bring the blessings of good health to so many millions of our fellow citizens.

I bet you could take the legislation that we are talking about here, and I bet there aren't three Members of this Senate who have read this legislation. They could not. It was just out yesterday. And most of the Members have been involved in the various other measures. And we are being asked to vote on it. No committee, no explanation, absolutely none that is going to affect very, very important research.

That is not the way that we are going to try and move on into the next millennium, which is really the millennium of the life sciences. As science, as chemistry and physics have been in our past history, life sciences are going to be the key to the next millennium. And we want to make sure that we are going to meet our responsibilities and our opportunities in a way that is going to bring credit to the kind of research and can help make an enormous difference to families all over this country and really all over the world.

Mr. President, I yield the floor.

Mr. FRIST addressed the Chair.

The PRESIDING OFFICER. The Senator from Tennessee.

Mr. FRIST. Mr. President, I rise to speak, hopefully in part at least, to clarify where we are today in terms of a bill which is enormously important to all of us, to our families, to our children, to health care, to medical science. It is a bill that has been talked about in the context of cloning, of human cloning. For the past year—not on the specifics of the bill—no, but there has been debate in the past year about whether or not today, in 1998, our society is ready to clone, or have mass production, of cloned human individuals.

My distinguished colleague from Massachusetts just spoke to the importance of science, and of protecting scientific discoveries that will contribute to health care for the next generation. As a scientist, let me say at the outset that I could not agree more wholeheartedly with the commitment to not slowing down science in its efforts to improve health care.

I say this, and I will qualify my statement by saying that we have to today consider the ethical implications that surround scientific discovery. We must consider the ethical ramifications that might—in certain very narrowly defined and specific arenas—tell us to stop, tell us to slow down before we jump or really leap ahead—into the unknown. This would have huge moral and ethical implications, not just in how we deal with each other as individuals, but also in terms of how we deal with each other globally. This is because we are talking about affecting the overall genetic pool as well as the psychosocial implications of how we are defined as individuals.

This does need to be addressed. It is going to take an ongoing dialogue. We cannot—cannot—answer all the questions here in this Senate Chamber or in the U.S. Congress. It does take the

overall debate of "What are the ethical limitations to various aspects of science today?" into the public square—where we can meet with scientists, lay people, bioethicists, people from the business community, theologians, and ethicists broadly.

We need to face that. And I mention that because this bill has not been brought to the floor formally. We have the objection. But I think it is important to understand what this particular bill does. It does two important things. No. 1, it establishes a commission, a bioethical commission which is composed of 25 people, a permanent commission that will look at the bioethical issues of new innovations, new science, new technology so that we do not have to debate every new breakthrough, every new technology which is coming with increasing frequency here in this Chamber.

This commission is to be comprised of 24 individuals. Subcommittees are set up in terms of ethics, medicine, theology, science and social sciences. It is broadly representative, not with politicians on it. In fact, there is an exclusion in there for putting politicians on it, but it will be appointed in a bicameral way by both sides of the aisle, broadly representative, with each member serving for 3 years, rotating members, with ongoing discussion.

There is no forum today for the American people to have the ethical, theological, scientific, social implications of this new technology discussed. And that is why this is striking such a strong chord here today. So some people say, "Why don't we run away from this? Why don't we just say," based on what I have just implied, "let's don't address it now. Let's wait until the future?"

Well, in truth, that is what has happened over the last year. We had a breakthrough. And it is a breakthrough using a specific technology which in a sheep—Dolly—really captured the attention of the world because it demonstrated for the first time that we are on the edge or on a precipice looking out to a type of science which we have never had to face before realistically, and that is the replication, the duplication of the human being.

How have we handled it? It is not like we have not talked about human cloning. Yet a lot of people will come forward and say we have not addressed this in this body or as a Nation.

As chairman of a subcommittee which is focused on issues of public health and safety, I can tell you that the subcommittee actually held two hearings. The first hearing was entitled "Examining Scientific Discoveries In Cloning, Focusing On Challenges For Public Policy." And that particular hearing was in March of last year. We had a number of people come forward. Again, this is for the benefit of my colleagues so they can go back and look at the testimony that was presented

really aimed directly at the Wilmut experiment on Dolly, somatic cell nuclear transfer and its implications.

That discussion was begun back in March. Harold Varmus, who is Director of the National Institutes of Health, Public Health Service, U.S. Department of Health and Human Services, came and testified. His testimony is available, talking about this specific technique. Dr. Ian Wilmut talked before our committee in a public hearing. He is an embryologist at Roslin Institute in Edinburgh, Scotland. I had an opportunity to visit the institute there and view the type of research that is going on personally.

Dr. Wilmut's testimony has been presented to this body. I would encourage my colleagues to go back and look at that public hearing. We looked principally, at that particular hearing, at the scientific discoveries. But we wanted to hear from members of the National Bioethics Advisory Committee, or NBAC. The NBAC committee was eventually charged, over a 90-day period, to look at this issue of human cloning and to make recommendations. And we had Dr. Alta Charo, professor of law, University of Wisconsin, on behalf of the National Bioethics Advisory Commission testifying.

We also had John Wallwork, director of the transplant unit—transplantation, my field, has been mentioned on the floor today. And I hope to have a few comments on that shortly because I think we have to be very careful not to overstate what the bill, which has not yet even been discussed, does because it is easy to frighten people and say that this bill is going to shut down science in a field like transplantation. It does not do that. This bill is very, very narrowly defined and only in an arena which results in human cloning.

We held another hearing. And that hearing was entitled, "Ethics And Theology: A Continuation Of The National Discussion On Human Cloning." I mention this because, as a scientist, as a physician, as someone who has taken care of patients, and now as a U.S. Senator, I am going to come back to again and again that we do have the responsibility to look at the ethical implications of new innovations. That is what we are, trustees of the American people.

This hearing on "Ethics And Theology: A Continuation Of The National Discussion On Human Cloning" had witnesses, such as James Childress, again a member of the National Bioethics Advisory Commission, and also Edwin Kyle, professor of religious studies at the University of Virginia. We had Dr. Ezekiel Emanuel, a member of the National Bioethics Advisory Commission. We had a number of people testifying from the theological community as well.

I mentioned both of these hearings and the testimony therein for two reasons: No. 1, to help my colleagues and the American people know where they

can reference certain material, and, No. 2, to demonstrate that the dialogue has been ongoing both in Washington, DC, in the U.S. Senate, in Congress broadly, but also on the public square.

We have heard some call for a private moratorium among the scientific communities. All of that seems pretty good until we recognize that it is not working. Just several weeks ago, we had a proposal by an individual, in essence, to set up an industry. The purpose of that industry is stated, not in these exact words, but that industry which is proposed is to clone human individuals.

I'm of course, referring to Dr. Seed. Can it be done? We don't know. We know that there is a certain technology that worked in an animal that, if a lot of people focused on that and there were a lot of experiments, could result in a human being. But the pronouncement that in spite of the moratorium, in spite of the discussions today, that we have an individual proposing the creation of an industry that is going to go charging ahead when we don't know the implications to society, to this country, to the world, is something that we must react to.

Tough issue. Ethics. We are talking about a procedure which has never been applied in the human arena. It has only been performed in animals. A lot of hypothetical examples will come to the floor. This bill addresses the problem that I just stated. We don't have a national forum now in which to intelligently, with broad input, discuss these ethical implications of new technology and new innovations and science. This bill, once it is allowed to be brought to the floor, very specifically sets up a mechanism outside of the U.S. Congress but broadly representative to be able to discuss these issues in a sophisticated, intelligent, ethical way. We need that mechanism. This bill creates that mechanism permanently.

The second thing that this bill does, it attempts to—and it is tough; I can tell you it is tough in terms of doing it just right, but the bill does it just right—it narrowly focuses on a particular procedure in the big world of science and research. It takes a very specific procedure that has never been even used in human cells in terms of creating embryos and says let's ban that procedure. Let's allow that procedure, even in animals, in the research arena, in cells. Let's learn more about that procedure so we will know what those implications are. But let's ban that narrow procedure when it is used to create a human being, another person.

Now, the advantage is by banning just that specific technique as it applies to human cloning, you can still continue experimenting with Dollys, bovine models, pigs, cows, baboons—animal research. There will be a lot of people who will say maybe we shouldn't use it there, but that is not what this bill does. It only bans the somatic cell nuclear transfer, so-called

Dolly technique, as it applies to human cloning. In vitro research continues, other embryo research continues. This does not stop embryo research, or research on diabetes or sickle cell or cancer. It does not do that. It takes a very narrow procedure which is not commonly even applied to human cloning and says, stop, we will ban that. All other research continues.

No. 1, we do not ban all somatic cell nuclear transfer, only somatic cell nuclear transfer which is a specific technique as it applies to human cloning. Somatic cell nuclear transfer technology can continue in other fields. It can continue in animals. It can continue in cells. It is important for people to understand that we only ban this very specific procedure when used to produce a cloned human embryo.

Second, a little while ago a concern was expressed about the definition of "embryo"; the definitions are imprecise. We don't need to get into a debate about how to define an embryo this morning or today or on the floor of the U.S. Senate because we already know what an embryo is. I will just cite two references. The National Institutes of Health Embryo Panel, which had a formal report in 1994, basically said, "In humans, the developing organism from the time of fertilization." That is their definition of embryo.

If we look at the very good, although admittedly I will say incomplete, report by the NBAC, the National Bioethics Advisory Committee appointed by the President, which had a very short time line, their report I should say had recommendations based on the safety of the procedure. They admitted they did not have the time or the process to look at all the ethical and social and theological implications. They held hearings on it, but their conclusions were not based on those ethical considerations. In their report in 1997, several months ago, they said the embryo is "the developing organism from the time of fertilization."

The NIH Embryo Panel—I was not in this body at that point in time, but I have had the opportunity to go back and read their findings and their report—was very clear in their statement that the embryo does have some moral significance. The embryo as just defined by these two definitions does have moral significance today.

There is a huge debate, a debate which I think we should avoid on this narrow, narrow bill, that can go into abortion, pro-choice and pro-life, when do you define a life. I don't think we need at this point in time to get into that discussion. We do need to recognize that people such as previous panels like the NIH Embryo Panel did give moral significance to that embryo.

Now, third, in essence, the statement was made the application of nuclear transfer cloning to humans could provide a potential source of organs or tissues of a predetermined genetic background. That statement refers to my own field of transplantation where the

concept is that rejection of a heart or of a lung or of a kidney is determined in large part by how different the recipient organism looks at that transplanted organ, genetically how different are they, which explains this whole process we called rejection. That is an inflammatory-like process which says the recipient body will reject that heart, either more often or totally. The genetically closer you get, the less that process of rejection occurs, free of other types of immunosuppression. This whole idea of having lots of copies of an organ, of a DNA, is one line of research in terms of eliminating rejection.

References were made to spinal cord injuries, Alzheimer's, Parkinson's, cancer, with the whole premise being that research will be shut down in these fields. I want to assure my colleagues it will not. Again, it is a very specific, narrow procedure as it applies to human cloning. Animal research will continue, plant research will continue, other cellular research will continue.

Now, NBAC also in their report in 1997 looked at this issue about transplantation, since that was brought up on the floor. Let me refer to their finding, and this is from their Chapter 2, Science and Applications of Cloning, in their report. "Because of ethical and moral concerns raised by the use of embryos for research purposes, it would be far more desirable to explore the direct use of human cells of adult origin to produce specialized cells or tissues for transplantation into patients."

I think it pretty much speaks for itself based on their ethical and moral concerns with this type of research that you don't necessarily have to rely on somatic cell nuclear transfer to produce an embryo as being the technique in order to create this likeness to prevent rejection.

No. 2, they say it deals with transplantation and research. "Given current uncertainties about the feasibility of this, however, much research would be needed in animal systems before it would be scientifically sound and therefore potentially morally acceptable to go forward with this approach." That is, the approach of somatic cell nuclear transfer. So what NBAC concluded, "Given these uncertainties. . . much research would be needed in animal systems. . ."

Our bill allows that research to continue and then make a decision, possibly 5 years from now, 10 years from now, 3 years from now, in terms of what we learn from those animal systems. Our bill says, "Don't use this technique to clone humans." There are a lot of other strategies. I don't want my colleagues to think that somatic cell nuclear transfer technique is one of the more important techniques today. There are all sorts of strategies in terms of the transplantation arena.

Again, looking at NBAC, they recognize that, "Another strategy for cell-based therapies would be to identify methods by which somatic cells could

be de-differentiated and redifferentiated along a particular path. This would eliminate the need to use cells obtained from embryos."

Again, now is not the time to go into these details, but I do want to show in part the richness of science to demonstrate that this one particular technique as applied to a human, as applied to human cloning, is the only thing that is being banned, and all this other research continues right along.

The issue has come up and will likely come up, should we create embryos purely for research purposes? Our bill does not. Let me say at the outset, our bill, as I said, allows embryo research to continue as it is today under the requirements and the regulations that are out there today. What our bill does, it looks at a particular technique with other research and embryos allowed to continue. You can step back and say, should someone be out creating all these mass-produced human embryos just to do research on them and then destroy those embryos? It is an issue which is very likely to come up before this body.

Let me introduce it and just say that our bill does not allow creation of these embryos using somatic cell nuclear transfer—human embryos. Again, animal research can continue. The Washington Post really captured, I think, what this debate will evolve to as we look at ethics and theology and science, careful not to slow down the progress of science which we want to encourage in all the fields that have been mentioned this morning. The Washington Post editorial in 1994 basically says, "The creation of human embryos specifically for research that will destroy them is unconscionable. Viewed from one angle, this issue can be made to yield endless complexity. What about the suffering of individuals and infertile couples who might be helped by embryo research? What about the status of the brand new embryo? But before you get to these questions, there is a simpler one: Is there a line that should not be crossed even for scientific or other gain, and if so, where is it?"

This is not a one-side-of-the-aisle issue. In fact, both sides of the aisle have put forth bans on human cloning. President Clinton doesn't believe the Federal Government should be funding embryo-type research. Basically he has said, "The subject raises profound ethical and moral questions as well as issues concerning the appropriate allocation of Federal funds. I appreciate the work of the committees that have considered this complex issue and I understand that advances in in vitro fertilization research and other areas could be derived from sufficient work. However, I do not believe that Federal funds should be used to support the creation of human embryos for research purposes."

Well, let me step back and then I will close. The bill, which we had hoped would come to the floor today does two

things. No. 1, it creates a bioethics commission, permanent, 24 members, broadly representative of society today, with the disciplines of ethics, bioethics, theology, the social sciences, all well represented, a forum that I think is most appropriate to discuss these very difficult issues of technology that will be coming through even more rapidly in the future. The answer to the question is, why don't we just appoint this commission and pass that part of your bill and not worry? Well, that is what we have sort of been doing for the last several months—sitting back as the national dialog continues. Yet, we have a proposal coming from the private sector at this juncture and that proposal is to go out with the single objective of cloning human beings. If we as trustees of the American people want to step back and say, no, that is too hot an issue for us, that is one approach. My approach is that we go in, we address that specific problem, that cloning of the human individual with the very best legislation that we can do, set up a commission so that in the future both that issue and other issues can be discussed, look at the science, look at the ethics, look at the philosophical and social implications of this research. So that is No. 1, a bioethics commission.

No. 2 is to target the Dr. Seeds of the world—people who don't have the problem, who don't fully see the ethical potential for harm to society and to the world and, therefore, have basically publicly stated what their objective is—to create human beings, and be appealing for resources to do just that. That is why the American people expect us to come forward and debate and talk about the implications, make sure that we do exactly what I have said, which there will be debate on and that is in a very focused way, target a particular technique which has never been used to clone a human individual. We just want to prevent that and allow that science to continue.

The editor of the New England Journal of Medicine basically has said in the past: "Knowledge, although important, may be less important to a decent society than the way it is obtained."

I hope as we go forward and look at the final disposition of this bill that we come back to that statement.

I yield the floor.

Mr. HATCH addressed the Chair.

The PRESIDING OFFICER. The Senator from Utah.

Mr. HATCH. Mr. President, I listened to my colleague's excellent statement and, of course, since he is the only physician in the Senate, I think we should all pay strict attention to him.

Let me just say that I am very concerned about debating this bill today, a bill which falls within the jurisdiction of the Judiciary Committee, without our having any hearings or other discussion, because there are a lot of complicated issues involved here.

I want to let the distinguished Senator from Tennessee know that I support his statements in many respects.

I, too, am opposed to cloning of human beings.

But at the same time, we have to move very carefully in this area so that we do not preclude a lot of very promising medical technologies and very valuable biomedical research. It may be that amendments are need to clarify that.

I maintain an interest in this issue both as Chairman of the Committee under whose jurisdiction this criminal code amendment would fall, and as a Senator with a long-standing interest in biomedical research and ethics.

The questions raised by this legislation are both novel and difficult and it behooves us to move carefully.

Mr. FRIST. I thank the Senator.

Mr. HATCH. Mr. President, I ask unanimous consent that the remarks I am about to give be considered as if in morning business.

The PRESIDING OFFICER. Without objection, it is so ordered.

#### NOMINATION OF DAVID SATCHER TO BE SURGEON GENERAL

Mr. HATCH. Mr. President, I have listened with great care to our debate about the nomination of Dr. David Satcher over the past few days. It has been a constructive discussion, one which has raised a number of important issues.

I have the greatest respect for the Offices of the Surgeon General and Assistant Secretary for Health. The individual who occupies this position will become the Nation's No. 1 public health official, our top doctor, if you will. For this reason, this nomination deserves the utmost scrutiny.

I have the greatest respect for our colleague, the Senator from Missouri. I think he has made some arguments that raise very valid concerns, and it behooves this body to examine them.

That being said, after a great deal of analysis, I have concluded that Dr. Satcher is eminently qualified for the position, and that there is a more than adequate explanation for his position on two key issues—partial-birth abortion and HIV testing in Third World countries. Accordingly, I intend to support his nomination.

From a humble rural background, David Satcher has risen to become a leading public health expert—the director of the prestigious Centers for Disease Control and Prevention, a doctor who is widely respected for his ability to communicate scientific information in a credible manner. He has done a great job at the Centers for Disease Control and Prevention.

I have spoken at length with Dr. Satcher and became convinced that he has an agenda that Americans of both parties should support. Tobacco control is at the top of that agenda. On the issues of teen pregnancy and sexually transmitted disease, Dr. Satcher intends to promote abstinence and assures me that he believes health and sex education are a parental responsibility,

in which the Government should play only a supportive role. Moreover, Dr. Satcher believes science should determine health policy, attendant upon which we have based virtually all of the public health legislation that has passed this body.

Let me note for the Record that Dr. Satcher has experience with three of the four historically black medical schools. He learned firsthand of the problems that Americans face in seeking care, and he does not advocate for a Federal solution.

During Dr. Satcher's tenure at CDC, the Centers for Disease Control, he worked to increase childhood immunization rates, to develop better ways to protect Americans from new infections, and decrease teenage pregnancy rates. He has also demonstrated U.S. leadership in attacking the world AIDS problem.

Critics of the nomination have raised concern that he supports the President's position on partial-birth abortion. It is no secret that I disagree vehemently with that position and will continue to work until a prohibition on partial-birth abortion is the law of the land.

Yes, it is true that Dr. Satcher supports the President's position, which is not surprising given that Dr. Satcher is the President's nominee. I certainly understand the motivation of some in saying that he should be opposed for that reason.

But in reviewing the hearing record on this nomination, I am impressed by Dr. Satcher's assurances to the committee on this issue. He said, "Let me unequivocally state that I have no intention of using the positions of Assistant Secretary for Health and Surgeon General to promote issues relating to abortion. I share no one's political agenda, and I want to use the power of these positions to focus on issues that unite Americans, not divide them. If confirmed by the Senate, I will strongly promote a message of abstinence and responsibility to our youth, which I believe can help to reduce the number of abortions in our country." I believe that nothing in Dr. Satcher's background, including his work as CDC Director, suggests that he would try to make the Surgeon General's post into a pro-abortion bully pulpit. Indeed, he has personally given me his assurances to the contrary.

I remember when Dr. C. Everett Koop was nominated by a Republican President and his nomination was held up for some 8 or 9 months on the issue of abortion, even though Dr. Koop asserted he would not use the Surgeon General's Office as a public forum for advocacy for abortion. As things worked out, we finally were able to get him confirmed, and I won't go into all the details on how that happened. He proved to be one of the great Surgeons General of the United States. I believe Dr. Satcher will likewise prove to be a very successful Surgeon General of the United States. I urge my colleagues to vote for him.

In addition, I am aware that another series of questions has been raised regarding joint CDC/NIH-sponsored clinical trials conducted in Thailand and the Ivory Coast to determine the effectiveness of AZT to prevent pregnant mothers from transmitting the HIV virus to their children.

In a nutshell, concern has been raised because the foreign trials were placebo-controlled against a "short course" regimen, whereas, in the United States a "long course" AZT regimen would have been the baseline for care. While it is clear that an argument can be made that the U.S. standard of care could have been used, this would not have resolved a more difficult problem of lack of access to expensive medications.

While opinion is hardly unanimous on this issue, the better view is that these grounds were appropriate to the nations and the populations studied. These trials were done in complete partnership with the local patients, health officials, and the World Health Organization.

As our debate on the Hatch-Gregg FDA export bill in 1995 made abundantly clear, we need not and should not second-guess the choice of patients and officials in other countries who, for a myriad of reasons, seek not to use the American standard of care. I believe it is critical for those in Congress to respect differences of the health and wealth characteristics of other countries. What is appropriate policy in the United States is not necessarily appropriate in the Third World.

Mr. President, I want to emphasize the importance of the position Dr. Satcher seeks to assume. The Surgeon General is the head of the United States Public Health Service Commission Corps. And, formerly, the position of Assistant Secretary for Health was the top public health slot in the government. Unfortunately, the position of Assistant Secretary for Health was downgraded in the Clinton administration and has become less important since the "ASH" no longer has line authority over the public health agencies such as CDC, NIH and FDA.

I hope that Dr. Satcher will undertake a review of that decision because I think it was a mistake, and I hope to discuss that with him in the future.

In closing, I want to point out that Dr. Satcher has a distinguished record that will be an asset to those important public health positions.

Doctor Satcher is a recognized public health leader and a member of the Institute of Medicine of the National Academy of Sciences, the recipient of numerous awards, such as the 1996 awardee of the AMA's prestigious Dr. Nathan B. Davis award.

In short, Dr. Satcher is a well-credentialed, highly effective public health leader. If confirmed, he will be the highest-ranking physician within HHS and could be counted on to be an articulate national spokesperson on a wide range of public health issues that we all agree are important.